Amendments in the Specification

Please delete the text inserted on page 5, after line 12, in the reply dated July 2, 2002. **The text to be deleted recites**:

-- ~~The HPT1, hPEPT1, D2H, and hSI receptors were selected for cloning as GIT receptor targets based on several criteria, including: (1) expression on surface of epithelial cells in gastro-intestinal tract (GIT); (2) expression along the length of small intestine (HPT1, hPEPT1, D2H); (3) expression locally at high concentration (hSI); (4) large putative extracellular domains facing into the lumen of the GIT; and (5) extracellular domains that permit easy access and bioadhesion by targeting particles.~~

~~The four recombinant receptor sites screened with the peptide libraries additionally have the following characteristics:~~

~~sucrose and other sugars, represents 9% of brush border membrane protein in~~

~~Receptor~~	~~Characteristics~~
~~D2H~~	~~Transport of neutral/basic amino acids; a transport activating protein for a range of amino acid translocases~~
~~hSI~~	~~Metabolism of sucrose and other sugars, represents 9% of brush border membrane protein in Jejunum~~
~~HPT1~~	~~di/tri peptide transporter or facilitator of peptide transport~~
~~hPEPT1~~	~~di/tri peptide transporter~~

~~6.2 Cloning of Extracellular Domain of Selected Receptor Site~~

~~The following receptor domains were cloned and expressed as His-tag fusion proteins by standard techniques:~~

~~Receptor~~	~~Domain (amino acid residues)~~

hPEPT1[a]	391-571
HPT1[b]	29-273
hSI[c]	272-667
D2H[d]	387-685

a Liang et al., 1995, J. Biol. Chem. 270: 6456-6463;

b Dantzig et al., 1994, Association of Intestinal Peptide Transport with a Protein Related to the Cadherin Superfamily;

c Chantret et al., Biochem. J. 285: 915-923;

d Bertran et al., J. Biol. Chem. 268: 14842-14949.

The receptor proteins were expressed as His-tag fusion proteins and affinity purified under denaturing conditions, using urea or guanidine HCl, utilizing the pET His-tag metal chelate affinity for Ni-NTA Agarose (Hochuli, E., Purification of recombinant proteins with metal chelate adsorbent, Genetic Engineering, Principals and Methods (J.K. Setlow, ed.), Plenum Press, NY, Vol. 12 (1990), pp. 87-98).

As indicated in WO 98/51325, phage which showed specificity to a GIT receptor was further characterized by ELISA on a variety of recombinant proteins. Phage which continued to exhibit GIT receptor specificity was sequenced. Their insert sequences are summarized as follows:

hSI	SEQ. ID.NO	TARGET BINDING PHAGE INSERT SEQUENCE
S15	16.	RSGAYESPDGRGGRSYVGGGGGCGNIGRKHNLWGLRTASPACWD
S21	17.	SPRSFWPWSRHESFGISNYLGCGYRTCISGTMTKSSPIYPRHS

~~S22 18. SSSSDWGGVPGKWRERFKGRGCGISITSVLTGKPNPCPEPKAA~~

~~Sni10 19. RVGQCTDSDVRRPWARSCAIHQGCGAGTRNSIHGCITRPLRQASAH~~

~~Sni28 20. SHSGGMNRAYGDVTRELRDRWNATSHHITRPTPQLPRGPN~~

~~Sni34 21. SPCGGSWGRFMQGGLFGGRTDGCGAIHRNRTSASLEPPSSDY~~

~~Sni38 22. RGAADQRRGWSENLGLPRVGWDAIAIHNSYTFTSRRPRPP~~

~~Sni45 23. SGGEVSSWGRVNDLCARVSWTGCGTARSARTDNKGFLPKHSSLR~~

~~SniAX2 24. SDSDGDIYGLRGGVRCSLRDRGCGLALSTVHAGPPSFYPKLSSP~~

~~SniAX4 25. RS LGNYGVTGTVDVTVLPMPGHANHLGVSSASSSDPPRR~~

~~SniAX6 26. RTTTAKGCLLGSFGVLSGCSFTPTSPPPHLGYPPHSVN~~

~~SniAX8 27. SPKLSSVGVMTKVTELPTEGPNAISIPISATLGPRNPLR~~

~~D2H~~

~~DAB3 28. RWCGAELCNSVTKKFRPGWRDHANPSTHHIRTPPPSQSSP~~

~~DAB7 29. RWCGADDPCGASRWRGGNSLFGCGLRCSAAQSTPSGRHHSTSTS~~

~~DAB10 30. SKSGEGGDSSRGETGWARVRSHAMTAGRFRWYNQLPSDR~~

~~DAB18 31. RSSANNCEWKSDWMRRACIARYANSSGPARAVDTKAAP~~

~~DAB24 32. SKWSWSSRWGSPQDKVEKTRAGCGGSPSSTNCHPYTFAPPPQAG~~

~~DAB30 33. SGFWEFSRGLWDGENRKSVRSGCGFRGSSAQGPCPVTPATIDKH~~

~~DAM 5 34. SESGRCRSVSRWMTTWQTQKGGCGSNVSRGSPLDPSHQTGHATT~~

~~DAX23 35. REWRFAGPPLDLWAGPSLPSFNASSHPRALRTYWSQRPR~~

~~DAX24 36. RMEDHKNSGWRDSCRWGDLRPGCGSRQWYPSNMRSSRDYPAGGH~~

~~DAX27 37. SHPWYRHWNHGDFSGSGQSRHTPPESPHPGRPNATH~~

~~DCX8 38. RYKHDIGCDAGVDKKSSSVRGGCGAHSSPPRAGRGPRGTMVSRL~~

~~DCX11 39. SQGSKQCMQYRTGRLTVGSEYGCGMNPARHATPAYPARLLPRYR~~

~~DCX26 40. SGRTTSEISGLWGWGDDRS GYGWGNTLRPNYIPYRQATNRHRYT~~

~~DCX33 41. RWNWTVLPATGGHYWTRSTDYHAINNHRPSIPHQHPTPI~~

~~DCX36 42. SWSSWNWSSKTTRLGDRATREGCGPSQSDGCPYNGRLTTVKPRT~~

~~DCX39 43. SGSLNAWQPRSWVGGAFRSHANNNLNPKPTMVTRHPT~~

~~DCX42 44. RYSGLSPRDNGPACSQEATLEGCGAQRLMSTRRKGRNSRPGWTL~~

~~DCX45 45. SVGNDKTSRPVSFYGRVSDLWNASLMPKRTPSSKRHDDG~~

~~hPEPT1~~

~~PAX9 46. RWPSVGYKGNGSDTIDVHSNDASTKRSLIYNHRRPLFP~~

~~PAX14 47. RTFENDGLGVGRSIQKKSDRWYASHNIRSHFASMSPAGK~~

~~PAX15 48. SYCRVKGGGEGGHTDSNLARSGCGKVARTSRLQHHNPRATPPSR~~

~~PAX16 49. SWTRWGKHTHGGFVNKSPPGKNATSPYTDAQLPSDQGPP~~

~~PAX17 50. SQVDSFRNSFRWYEPSRALCHGCGKRDTSTTRHHNSPSDSYPTR~~

~~PAX18 51. SFLRFQSPRFEDYSRTISRLRNATNPSNVSDAHNNRALA~~

~~PAX35 52. RSITDGGINEVDLSSVSNVLENANSHRAYRKHRPTLKRP~~

~~PAX38 53. SSKVSSPRDPTVPRKGGNVDYGCGHRSSARMPTSALSSITKCYT~~

~~PAX40 54. RASTQGGRGVAPEFGASVLGRGCGSATYYTNSTSCKDAMGHNYS~~

~~PAX43 55. RWCEKHKFTAARCSAGAGFERDASRPPQPAHRDNTNRNA~~

~~PAX45 56. SFQVYPDHGLERHALDGTGPLYAMPGRWIRARPQNRDRQ~~

~~PAX46 57. SRCTDNEQCPDTGTRSRSVSNARYFSSRLLKTHAPHRP~~

~~P31 58. SARDSGPAEDGSRAVRLNGVENANTRKSSRSNPRGRRHP~~

~~P90 59. SSADAEKCAGSLLWWGRQNNSGCGSPTKKHLKHRNRSQTSSSSH~~

~~5PAX3 60. RPKNVADAYSSQDGAAAEETSHASNAARKSPKHKPLRRP~~

~~5PAX5 61. RGSTGTAGGERSGVLNLHTRDNASGSGFKPWYPSNRGHK~~

~~5PAX7 62. RWGWERSPSDYDSDMDLGARRYATRTHRAPPRVLKAPLP~~

~~5PAX12 63. RGWKCEGSQAAYGDKDIGRSRGCGSITKNNTNHAHPSHGAVAKI~~

~~HPT-1~~

~~HAX9 64. SREEANWDGYKREMSHRSRFWDATHLSRPRRPANSGDPN~~

~~HAX35 65. EWYSWKRSSKSTGLGDTATREGCGPSQSDGCPYNGRLTTVKPRK~~

~~HAX40 66 REFAERRLWGCDDLSWRLDAEGCGPTPSNRAVKHRKPRPRSPAL~~

~~HAX42 67. SDHALGTNLRSDNAKEPGDYNCCGNGNSTGRKVFNRRRPSAIPT~~

~~HCA3 68. RHISEYSFANSHLMGGESKRKGCGINGSFSPTCPRSPTPAFRRT~~

~~H40 69. SRESGMWGSWWRGHRLNSTGGNANMNASLPPDPPVSTP~~

~~PAX2 70. STPPSREAYSRPYSVDSDSDTNAKHSSHNRRLRTRSRPN-~~

Please delete the text inserted on page 6, after line 14, in the reply dated July 2, 2002. **The text to be deleted recites**:

~~--In a specific embodiment of the invention, proteins consisting of or, alternatively, comprising all or a fragment of a GIT transport receptor-binding peptide consisting of at least 5, 10, 15, 20, 25, 30 or 35 (contiguous) amino acids of the full-length GIT transport receptor-binding peptide are provided. In a specific embodiment, such proteins are not more than 20, 30, 40, 50, or 75 amino acids in length. Derivatives or analogs of GIT transport receptor-binding peptides include but are not limited to those molecules comprising regions that are substantially homologous to GIT transport receptor-binding peptides or fragments thereof (e.g., at least 50%, 60%, 70%, 80% or 90% identity) (e.g., over an identical size sequence or when compared to an aligned sequence in which the alignment is done by a computer homology program known in the art) or whose encoding nucleic acid is capable of hybridizing to a coding GIT transport receptor-binding peptide sequence, under stringent, moderately stringent, or nonstringent conditions.--~~